

Aggression is a dominant behavior among adolescents in Al-Sadr city, Baghdad-Iraq

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Abstract:

Background: Aggression is any behavior intending to harm another living being that desires to avoid such harm. Aggression is considered as a public health problem worldwide. Exposure to violence is a determinant of aggression. Al-Sadr city, which is an overcrowded residential area in Baghdad, was exposed to violence through wars, civil war, and widespread inter-personal violence). This situation was an impetus to study aggression in this city.

Objectives: To estimate the prevalence of aggression among secondary school students in Al-Sadr city, Baghdad.

Methodology: A cross-sectional study was carried out in Al-Sadr city in Baghdad. A total of 720 adolescent secondary schools' students from both genders were included in the study. They were selected by multistage random sampling. Their age was ranged from 13-21 years. Data was collected from 1st of February 2019 to 30 of April 2019 through a self-reported questionnaire (Aggression-Problem Behavior Frequency Scale).

Results: The mean age of participants was 16.2±2.04 years. Of all participants, 84.3% were assessed to be aggressive; including 329 (91.4%) males and 278 (77.2%) females. Males showed significantly higher aggression than females (p=0.001). Absence from school and low academic achievement were dominating among aggressive students (88.2% and 86.9%, respectively). Non-physical Aggression was the most common type of aggression (76.4%).

Conclusion: A high prevalence of aggression (mainly non-physical) was found, which was significantly associated with gender, being higher among males. Aggression was negatively affecting school achievement.

Keywords: Aggression, Al-Sadr city, adolescents, violence, Iraq.

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Introduction:

Aggression is any behavior intending to harm another living being that desires to avoid such harm (1). Aggression is a fundamental health problem in children and is one of the most common reasons for referring children to mental health consults.(2) Earlier aggression may lead to several behavioral disorders in adolescence and adulthood like: alcohol and drug abuse, violence, depression, suicide attempts, spouse abuse, and neglectful and abusive parenting.(3)

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Aggressive behavior may include fighting, bullying, being cruel to others or animals, using weapons, and forcing another into sexual activity. When aggression is not a response to a clear threat, it is considered a sign of mental disorder. (4) Aggression may be classified to:(5) Physical aggression: physically harming another such as hitting, biting, kicking, stabbing, shooting. Physical aggression in children can be observed at first year of life, with a peak around 2-4 years of age and a decrease there after. Verbal (non-physical) aggression: hurting another with spoken words such as screaming, swearing, name calling.

Relational aggression: hurting another's reputation or friendships through what is said to others verbally.

There is a notable high prevalence of antisocial behavior among adolescents in some countries. (6)

Although, there is a limited number of studies concerning adolescents' aggression in Iraq, (7,8) high rates of aggression were reported recently. (7-9) Several trials in Iraq showed some determinants of aggression among children and youth. Especially following wars, determinants were massive internal displacement, bad housing condition, bad environments, increased poverty and mental problems such as depression leading to high prevalence of violence. (7,9-11) Aggression during childhood is a major concern because of the long-term negative developmental outcomes associated with delinquency. (12) Adolescent aggression is an underestimated health problem which is increasing in Iraq, as the health system still employs classical health strategies, similar to other developing countries. These conflicts and hardships expose children to daily horrors devastating their lives and destroying their future.(13) Increasing aggression accompanied skipping school, children labour and child soldiers.(14) Aggression is determined by multiple factors included in 6 major categories: individual, family, school climate, peer-related, community and neighborhood, and environment.(15) Violence is an extreme form of aggression that has severe physical harm (such as serious injury or death) as a target. All acts of violence are considered cases of aggression, but not all acts of aggression are considered cases of violence. (16) Al-Sadr city, Baghdad is one of the most densely packed community in Middle East and is exposed to violence and conflicts(17). This study was carried out in Al-Sadr city to determine the prevalence of aggression among adolescents.

Material and Method:

A cross-sectional study was carried out in Al-Sadr city, Baghdad governorate. The target population was students from 13 - 21 year attending governmental secondary schools, who are resident in Al-Sadr city. Selection criteria: All secondary school students in Al-Sadr city between 13 and 21 year of age, excluding the internally displaced students. The data was collected through a self-reported questionnaire (Aggression—Problem Behavior Frequency Scale) (18) in addition to demographic data; from 1st February to 30th April 2019. The scale included 18 items to measure aggression with 3 subscales measuring physical, non-physical, and relational aggression. A score of >18 indicates aggression. The scale has a good internal consistency, test-retest reliability and validity (18). The main analysis examined the association between aggression (dependent variable) with sex and age

(independent variables) and was examined by chi-square and student's t tests. P value of < 0.05 was considered as statistically significant. The required sample size for this study was calculated by using the standard equation for calculation of sample size of cross-sectional studies. (19) The minimally needed sample was estimated to be 323 subjects for both genders. By using $deff=2(20)$ to increase the precision of the study, we added 10% of the calculated sample size to compensate for the non-response (20); the sample size became 711 which was rounded to 720 students (male and female). The sample was selected by multistage random sampling method:

1st STAGE: There are eighty sectors in Al-Sadr city. Eight sectors were selected randomly. These eight sectors include 25 schools.

2nd STAGE: Eight schools were selected randomly out of these 25 schools.

3rd STAGE: Each school contains 3 grades; two classes from each grade were chosen randomly.

4th STAGE: Finally, 15 students were selected randomly from each class.

The total selected sample size was 720.

History of absence from school (absence considered if student absent from school more than 7 days without cause) and mean academic score for first course and mid-year examination (actual score for students per 100 marks, failure considered when mean academic score < 50 and success considered when mean academic score \geq 50) were obtained from school administration.

Ethical considerations:

An official permission was obtained from the Directorate of Education of Al-Rusafa Al-Thalitha. A written consent was taken from the participants, school administration, and parents for participating in this study. The collected data will be kept confidential and will not be used except for the study purpose.

Results:

A total of 720 students were included in this study. The mean age of participants was 16.2 ± 2.04 year. There were 607 students (84.3%) who were assessed as aggressive. The score of 18 indicates no aggression, and scores from 19 or above indicate the increasing degree of aggression. The possible highest score of aggression was 108. The level of aggression was classified as not aggressive (score=18), low aggression (score 19-63), and high aggression (score 64–108)). Of all students, 542 (75.3%) were assessed to have low aggression and 65 (9%) to have high aggression scores, table 1.

Table 1: Level of aggression among students

Level of aggression	No.	%
No aggression (score=18)	113	15.7
Low aggression (score=19-63)	542	75.3
High aggression (score=64-108)	65	9.0
Total	720	100

Of the total males students, 329 (91.4%) were aggressive compared to 278 (77.2%) of the females. There was a significant statistical association between aggression and sex ($p=0.001$), as shown in table 2.

Table 2: Distribution of students by aggression and sex

Sex	Aggression		No aggression	
	No.	%	No.	%
Male	329	91.4	31	8.6
Female	278	77.2	82	22.8
Total	607	84.3	113	15.7

$\chi^2=27.3$ $df=1$ $p=0.001$

Table 3 reveals that the mean age of aggressive students was not significantly different from that of students who were not aggressive ($t=1.76$, $d.f.=718$, $p=0.08$).

Table 3: Distribution of aggression by age

Aggression	No.	Age (Mean \pm SD)
Aggressive	607	16.1 \pm 2.1
Not aggressive	113	16.5 \pm 1.06

$t=1.76$, $d.f.=718$, $p=0.08$

There were 254 (88.2%) aggressive student of 288 with history of absence from school and 332 (86.9%) aggressive student of 382 failed in first course and mid examination. There was a significant difference between aggression and school achievement that manifested by absence from school and mean academic score ($p=0.02$ and $p=0.04$, respectively), table 4:

Table4: Aggression distribution by history of absence from school and mean academic score among students in secondary schools in Al-Sadr city, Baghdad-Iraq 2019

Variables	Aggression		No aggression	
	No.	%	No.	%
History of absence from school				
Yes	254	88.2	34	11.8
No	353	81.7	79	18.3
P value	$\chi^2=5.5$ $df=1$ $p=0.02$			
Mean academic score				
Success	275	81.4	63	18.6
Fail	332	86.9	50	13.1
P value	$\chi^2=4.2$ $df=1$ $p=0.04$			
Total	607	84.3	113	15.7

According to the types of aggression, non-physical aggression was the most common type with 550 students (76.4%). Relational aggression was ranked second with 492 (68.3%), while physical aggression was with the lowest rate, 474students (65.8%).

Discussion:

The observed rate of aggression was 84.3%. It is much higher than that reported recently in Baghdad-Iraq, (24.3%, 30%).(8,9) The difference between both rates might be explained by variation in samples, instruments used to measure aggression, and neighborhood. This study was conducted in a crowded low socioeconomic area ruled by militias and tribes that enhance aggression among children and adolescents. (7) Al-Sadr city is one of the most densely packed communities in the Middle East and has been exposed to violence and conflicts since 2003. (17)

The observed level of aggression of (84.4%) is much higher than that reported in other Arab countries (Lebanon 45.9%(6), Jordan 46.6%(21), Qatar 49% (22), UAE 43.2%(23), Qatar 49%(24), Saudi Arabia 47.3%(25), and Egypt 23.7%(26)). The difference might be attributed to the continuous exposure to violence expressed by coups, wars, and civil wars. Exposure to violence is a determinant of aggression. (27) The noticed rate (84.3%) was higher than that in developed countries. (28) Applying aggression prevention programs in developed countries might be contributed for this difference. (29) In addition to conflicts that escalated after 2003(11), unplanned urbanization and rapid population growth through uncontrolled immigration and recent internally displacement of families to Baghdad led to socioeconomic inequality (30), which with ongoing widespread violence, created this high rate of aggression. Wars in developing countries have heavy human, economic, and social costs and are a major cause of poverty and underdevelopment, (31) mental issues like post-traumatic stress disorders (32), depression (33), and poor school achievement (34). Dissimilarity in the sample, instruments and socioeconomic status might have contributed to the reported high rates. Variation in expressions (opinions, thoughts, ideas), in educational system (mixed boy and girls), and in culture (believes, thoughts, and behavior) might be the reason behind this difference.(35,36) In addition, applying aggression prevention programs in developed countries may contribute to the difference in aggression rates between our sample and those reported from developed countries.(37) Males showed a significantly higher aggression level than females (91.7% and 77.2% respectively). This result

is similar to other reports in Iraq (9), Egypt (26), and Qatar (24). It is in agreement with reports from the US.(38, 39) It can be attributed to biological factors(40) or to the differences in exposure to violence.(38,39) The mean age of aggressive students was 16.1 ± 2.1 , with no significant difference between mean ages ($p= 0.08$). This finding was resembling other studies in Baghdad (9) and Egypt. (26) It is inconsistent with that done in India (41) in which aggression was significantly associated with the age of adolescents. These differences might be due to high prevalence of aggression and limited age range (adolescents) in the current study. School achievement manifested by history of absence from school and mean academic score, it was significantly associated with aggression ($p=0.02$ and 0.04 respectively). It is consistent with that previously reported in Iraq. (7,10,11) Non-physical Aggression had the highest frequency among all types of aggression (76.4%). Relational aggression was ranked second with rate (68.3%) while physical aggression had the lowest rate (65.8%). This finding is in agreement with that reported in Croatia. (42)

Conclusion:

High prevalence of aggression (mainly nonphysical) was observed. Aggression was significantly associated with sex. Males showed higher aggression levels than females. Aggression was negatively affecting school achievement.

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السلوك العدواني هو السلوك المهيمن بين المراهقين في مدينة الصدر / بغداد-العراق

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 د. بسمة محمد علي: اختصاص طب المجتمع/ مستشفى غازي الحريري للجراحات التخصصية
 د. عمار قحطان رحيم/ اختصاص باطنية/مستشفى الامام علي ع/ دائرة صحة بغداد-الرصافة
 أ.د. جواد كاظم الديوان/ بروفييسور في علم الاوبئة/ جامعة بغداد-كلية الطب-قسم طب الاسرة و المجتمع

الخلاصة

المقدمة: السلوك العدواني: هو أي سلوك ينوي إيذاء كائن حي آخر يرغب في تجنب هذا الضرر. بات السلوك العدواني مشكلة في معظم دول العالم حيث يعتبر ذو أهمية صحية عامة في جميع أنحاء العالم. التعرض للعنف هو أحد العوامل المحددة للسلوك العدواني. مدينة الصدر (وهي مدينة مزدحمة بالسكان) قد تعرضت الى عنف شديد من خلال (الحروب، الحرب الأهلية، والعنف واسع النطاق بين الأفراد). كان هذا الوضع حافزا لدراسة السلوك العدواني في هذه المدينة.

الأهداف: لمعرفة مدى انتشار السلوك العدواني بين طلاب المدارس الثانوية في مدينة الصدر - محافظة بغداد.

المنهجية: أجريت دراسة مقطعية في مدينة الصدر في بغداد. تم تضمين ما مجموعه 720 من المراهقين من طلاب المدارس الثانوية من كلا الجنسين في الدراسة. تم اختيارهم عن طريق أخذ عينات عشوائية متعددة المراحل. تراوحت أعمارهم بين 13 و 21 سنة. البيانات التي تم جمعها كانت عن طريق الاستبيان الذاتي (مقياس تكرار مشاكل السلوك العدواني).

النتائج: كان معدل أعمار الطلاب المشاركين 16.2 ± 2.04 سنة. من بين المجموع، وجد 84.3% من الطلاب يظهرون سلوك عدواني. من بين مجموع الطلاب الذكور، اظهر 329 (91.4%) منهم سلوك عدواني ومن بين الإناث 278 (77.2%). أظهر الذكور عدوانية أعلى من الإناث. حيث وجد ان السلوك العدواني ذات دلالة احصائية مع الجنس ($P = 0.001$). كان الغياب عن المدرسة وانخفاض مستوى التحصيل الدراسي مهيمناً بين الطلاب العدوانيين (88.2% و 86.9% على التوالي). وقد وجد ان السلوك العدواني الغير جسدي هو السائد (76.4%) بين الطلاب.

الاستنتاج: لوحظ ارتفاع معدل انتشار السلوك العدواني (الغير جسدي بشكل اساسي). ارتبط العدوان بشكل كبير بالجنس. أظهر الذكور عدوانية أعلى من الإناث. وقد لوحظ ان السلوك العدواني يؤثر سلباً على التحصيل الدراسي.

كلمات الاستدلال: السلوك العدواني، مدينة الصدر، المراهقين، العنف، العراق.